

PATENT APPLICATION  
Serial Number: 09/960,532  
Attorney Docket Number: SYN 1778 RCE

### REMARKS

Applicant hereby submits, concurrently herewith, a Request for Continued Examination (RCE), under 37 C.F.R. §1.114 for the above-referenced prior-filed non-provisional application and this Preliminary Amendment.

Applicant hereby submits this Preliminary Amendment and Request for Continued Examination responsive to the Final Office Action—Date Mailed: January 26, 2006, Paper No. 2; for which a response is due [3] three months from the date of mailing of the Office Action: April 26, 2006; and responsive to the Advisory Action—Date Mailed: May 17, 2006, Paper No. 200060509; extended to be due June 26, 2006 by payment of a fee for two months extension of time, paid via the Request for Continued Examination (RCE) Transmittal.

Claims 1, 3, 5-21, 23, 37 and 40-45 were rejected and Claims 37 and 40-45 were objected to by Examiner in the afore-mentioned Final Office Action and Advisory Action to which this Preliminary Amendment is responsive.

Claims 1, 3, 5-21, 23, 37 and 40-45 are currently pending in the application. Claims 2, 4, 22, 24-36, 38 and 39 were previously canceled. Claims 1, 3 and 37 are hereby currently amended. Claims 5, 13, 17, 21, 40 and 41 were previously presented. Claims 6-12, 14-16, 18-20, 23 and 42-45 are original. No new matter has been added. Reconsideration is respectfully requested.

Claims 37 and 40-45 are objected to because in claim 37, line 9, "lower-rate SONET" should read – lower-rate SONET sub-channel. By this Amendment, claim 37 has been amended, so that claim 37, line 9, now reads as amended, "lower-rate SONET sub-channel".

Claims 40-45 are objected to as being dependent on claim 37.

Claim 37 has been amended to traverse and overcome the objection to claim 37, and thereby this amendment also overcomes the objection to claims 40-45.

Claims 1, 3, 5-21, 23, 37 and 40-45 are rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention.

Examiner states:

- In reference to claim 1  
Claim 1 recites the limitation "the SONET frame" in line 13. There is

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- insufficient antecedent basis for this limitation in the claim.
- In reference to claim 37  
Claim 37 recites the limitation “the SONET frame” in line 11. There is insufficient antecedent basis for this limitation in the claim.
- In reference to claims 3, 5-21, 23 and 40-45  
Claim 3, 5-21, 23 and 40-45 are rejected as being dependent on claims 1 and 37.

By this Amendment, claims 1, 3 and 37 are amended. As amended, claims 1 and 37 provide sufficient antecedent basis for “a part of one of the SONET frames”. The objection to claims 1 and 37 (and therefore, also as to claims 3, 5-21, 23, 40-45 as dependent on claims 1 and 37) are thereby traversed and overcome.

It is respectfully submitted, that the rejection of claims 1, 3, 5-21, 23, 37 and 40-45 under 35 U.S.C. §112, second paragraph, is hereby traversed and overcome for the reasons discussed hereinabove.

Claims 1, 37, and 40 are rejected under 35 U.S.C. § 102(b) as being anticipated by Davidson.

The two independent claims, claim 1 and claim 37, as herein amended, are patentably distinguishable over the prior art. Claims 1 and 37 provide three components: “(1) SONET network, (2) time driven switching, and (3) mapping of SONET to (TDS) time frames”.

In response to Examiner's points (i.e., paragraph 5, at pages 3-6 of the Office Action) the two independent claims, claim 1 and claim 37, as originally filed and as currently amended, explicitly patentably distinguish over Davidson (alone or in combination with other prior art).

Claims 1 and 37 are directed to providing the functional interface between two switching systems, SONET network and time driven switching (TDS) network. Claims 1 and 37 call for the components: “(1) SONET network, (2) time driven switching (TDS) network, and (3) mapping of SONET frames to (TDS) time frames.

SONET and IDS have different functional characteristics. SONET, which is well known in the art to use only accurate frequency synchronization, requires complex computation of overhead – OH. TDS (time driven switching), which is an element of the presently claimed invention (but not taught or disclosed in Davidson), is accurate in phase (not solely frequency) synchronization. This phase synchronization as in various ones of the pending claims, utilizes CTR (002) or common time reference. The presently claimed use of TDS with CTR (002) is

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entirely different from SONET and **DOES NOT** require, for example, the complex computation of overhead – OH – information, as needed for SONET (see, for example, FIG. 64.). The pending claims are also patentably distinguishable over all art of record.

As a result of the fundamental and inherent differences between SONET and TDS with CTR, the presently claimed invention provides an interface between SONET and TDS with CTR (as recited in Applicants' claims 1, 37 and all claims depending therefrom), such as, for example, the fractional lambda interface as recited in claim 1. (See also FLI – 8300 in the specification and Figures 55-57.) As set forth in Claims 1, 37, and all dependent claims therefrom, this interface performs two basic functions for each direction of communications: (A)(1) SONET termination before transporting (what is known in the art as SONET frames) and (A)(2) then mapping SONET frames into TDS with CTR (002) time frames and then transporting the content SONET frames through the TDS with CTR (002) network, and (as in certain dependent claims (e.g., claims 19, 20, 21 or 40-45)) (B) Opposite of the above operation, (B)(1) terminating TDS with CTR (002) and (B)(2) mapping back to SONET frames and then transporting through SONET network.

As discussed in the specification's detailed description (supporting the pending claims 1, 37, and claims depending therefrom), SONET to TDS with CTR interface (such as the fractional lambda interface – FLI – 8300 in the specification and Figures 55-57) provides SONET devices with access to the services of the time driven switching subnetwork 8020 (such as in claim 1) through a fractional lambda interface 8300. In the ingress direction, the fractional lambda interface 8300 provides time framing and synchronization with the CTR (common time reference) of STS-N frames prior to transmission within the time driven switching or time driven priority subnetwork 8020.

Please note, that SONET frames and TDS with CTR (002) time frames are functionally and semantically very different, though the two names use of "frames" can be confusing.

It is respectfully submitted that Examiner is incorrect in taking the position that the present claims are basically SONET. If this were actually the case, there would have been no need for having an interface (such as the fractional lambda interface – FLI – 8300 (in the specification and Figures 55-57)). However, as set forth in the pending claims 1, 37, and all claims depending therefrom) and as further detailed and supported in the present application

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specification and figures, an interface between **SONET frames** and **TDS with CTR frames** (such as the **FLI**) is provided in order to connect or interface.

In order to overcome the differences between **SONET frames** and **TDS with CTR (002) time frames**, each of claims 1 and 37, explicitly recites an interface between **SONET** and **TDS with CTR** between the **SONET network** and the **TDS network**.

54. This interface as set forth in claims 1 and 37 (and therefore in all claims depending therefrom), is not taught, suggested or inferred in Davidson (alone or in combination with any other art of record).

54. It is respectfully submitted, that the rejection of claims 1, 37 and 40 35 U.S.C. § 102(b) as being anticipated by Davidson, is traversed and overcome for the reasons as discussed above herein.

54. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Davidson.

Claim 3 depends from claim 1, and is thus, allowable for the reasons as discussed above with regard to claim 1. There is no teaching, suggestion or inference of an interface between **SONET** and **TDS with CTR** in Davidson (alone or in combination with other art of record).

It is thus, respectfully submitted that the rejection of claim 3 under 35 U.S.C. § 103(a) as being unpatentable over Davidson, is traversed and overcome.

Claims 5-18 and 41-45 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Davidson in view of Noser (US 5,315,594).

As discussed above herein, claims 1 and 37, and all claims depending therefrom (including 5-18 and 41-45), are patentably distinguishable over Davidson, alone or combined with Noser (or any other art of record). Neither Davidson or Noser, alone or in combination, teach or suggest of an interface between **SONET** and **TDS with CTR** (as set forth in claim 1, 37 and all claims dependent thereupon). (Examiner's citations to Davidson and Noser are supportive of Applicants' position on this point, and contrary to the points for which they are cited by Examiner.)

Even the Examiner's proposed combination of Davidson with the cross-connect as taught by Noser fails to anticipate or render obvious Applicants' claimed invention. Combining Noser with Davidson would be of no assistance to achieve Applicants' claimed invention.

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Furthermore, the combination is not taught or suggested by any of the references of record, alone or in combination.

As discussed hereinabove, Examiner's citations to the references of record fail to support Examiner's basis of rejection. Claims 1, 37, and all claims depending therefrom, are patentably distinguishable over Davidson and Noser, alone or together in combination with all art of record.

Additionally, Applicants' claimed invention (as set forth in claims 13-23 and 43-45) is patentably distinguishable over all art of record for the reasons as set forth above, plus additionally, provides for control based upon a common time reference with forwarding and with mapping of non-byte interleaved lower-rate SONET sub-channels.

It is respectfully submitted that the rejection of claims 5-18, and 41-45, under 35 U.S.C. § 103(a) as being unpatentable over Davidson in view of Noser, is traversed and overcome for the reasons as discussed herein.

Claims 19-21 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Davidson in view of Noser, as applied to the parent claim, and further in view of Khacherian et al. (US 5,768,257).

As discussed above herein, claim 1 and 37, and all claims depending therefrom, are patentably distinguishable over Davidson or Noser, alone or in combination. Claims 19-21 depend from claim 1, and are allowable over all art of record as discussed with reference to claim 1. Khacherian et al. does NOT make up for the deficiencies of the Davidson and Noser patents, relative to the presently claimed invention. Khacherian et al. fails to teach or suggest of an interface for controlling SONET to TDS with CTR, as in claims 1, 37, and all claims depending thereon. For example, there is NO mapping of SONET to TDS as a time frame in Khacherian et al., as there is called for in claim 1 and claims 19-21 (adding details of buffering and mapping, etc.) depending therefrom.

It is thus respectfully submitted that the rejection of claims 19-21 under 35 U.S.C. § 103(a) as being unpatentable over Davidson in view of Noser, and further in view of Khacherian et al. is traversed and overcome, for the reasons as discussed hereinabove.

Claim 23 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Davidson in view of Noser, as applied to the parent claim, and further in view of Shiragaki et al. (U.S. 6,115,517).

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As discussed hereinabove, the combination of Davidson and Noser (alone or in combination with other art of record), does NOT teach or suggest of a system (or method) as in the pending parent claims (1 and 37), or rejected claim 23 depending from claim 1 via claim 17. Thus, for the reasons as discussed above relative to claim 1, claim 23 is patentably distinguishable and allowable over Davidson and Noser (alone or in combination).

Shiragaki et al. does NOT teach or suggest of an interface for controlling SONET to TDS with CTR or of other aspects of the claimed invention as set forth in pending claim 23 (or claim 1 from which claim 23 ultimately depends).

Shiragaki et al. does NOT make up for the shortfall of Davidson, Noser and the other art of record relative to pending claim 23 (or claim 1 from which claim 23 ultimately depends).

Claim 23 is allowable as it depends from claim 17 and therefrom from claim 1, which is allowable and patentably distinguishable over all art of record for the reasons discussed hereinabove.

For the reasons as discussed above, claim 23 is allowable and patentably distinguishable over Davidson, Noser, and Shiragaki et al. (alone or in combination with each other and all art of record).

It is respectfully submitted that the rejection of claim 23 under 35 U.S.C. § 103(a) as being unpatentable over Davidson in view of Noser and Shiragaki et al., is traversed and overcome.

It is respectfully submitted that Applicants' arguments with respect to claims 1 and 37, previously filed, are NOT moot in view of the new ground(s) of rejection.

In order to overcome the differences between SONET frames and TDS with CTR (002) time frames, claims 1 and 37 (as originally filed and as currently pending), explicitly recites an interface between SONET and TDS with CTR between the SONET network and the TDS network.

This interface, as set forth in claims 1 and 37 (as originally filed and as currently pending), and all claims depending therefrom, is not taught, suggested or inferred in Davidson, Noser, Khacherian et al., Shiragaki et al., or any other art of record, alone or in combination.

It is respectfully submitted that Applicants' pending claims are patentably distinguishable over all art of record, and all bases of rejection are traversed and overcome, for the reasons as

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discussed herein [and further that Applicants' claims as originally filed were patentably distinguishable over all art of record, and all bases of rejection are traversed and overcome, for the reasons as discussed herein].

It is respectfully submitted that Applicant's prior amendment did NOT necessitate the new ground(s) of rejection presented in the January 26, 2006 Office Action, and that the January 26, 2006 **ACTION SHOULD NOT HAVE BEEN MADE FINAL**. See MPEP § 706.07(a), for the reasons as set forth above herein. However, Applicants have chosen to file this Request for Continued Examination (RCE) and this Preliminary Amendment, so as to advance the prosecution of this application.

As discussed hereinabove, NONE of the references of record, alone or in combination, teach, suggest or infer Applicants' claimed invention as set forth in pending independent claims 1 and 37 and all claims depending therefrom (either as originally filed or as currently amended). Applicants' amendments to the claims herein have clarified these points of patentable distinguishability over the prior art of record.

The prior art made of record and not relied upon by Examiner has also been reviewed by Applicants. It is respectfully submitted that all pending claims are patentably distinguishable over all art of record.

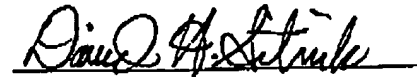
Applicants respectfully submit that by this Preliminary Amendment, any and all objections and rejections are hereby traversed and overcome, and the application (including all pending claims) is in proper form for allowance. A Notice of Allowance or Allowability is respectfully requested.

This response is accompanied by the appropriate Request for Continued Examination (RCE) Transmittal authorizing the Director to charge any additional fees and credit any overpayments during the pendency of this application to Sitrick & Sitrick's Deposit Account Number: 501166. A fee for two months extension of time is hereby due and paid via the Request for Continued Examination (RCE) Transmittal. Reconsideration is respectfully requested.

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The Examiner is invited to directly communicate with the undersigned, if it will in any way facilitate the prosecution of the application.

Respectfully submitted,



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June 26, 2006

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